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EXAMINER	
SHAH, PARAS D	

ART UNIT	PAPER NUMBER
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Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No.	Applicant(s)	
	10/750,020	THALANANY ET AL.	
	Examiner	Art Unit	
	PARAS SHAH	2626	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *16 December 2008*.

2a)☒ This action is **FINAL**. 2b)☐ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1,2,4-7,9,13,15-18,21,23-27,29,33,35-37,41 and 44* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1, 2, 4-7, 9, 13, 15-18, 21, 23-27, 29, 33, 35-37, 41, 44* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO/SB/08) Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____.
5) ☐ Notice of Informal Patent Application
6) ☐ Other: _____.

DETAILED ACTION

1. This communication is in response to the Application filed on 12/16/2008. Claims 1, 2, 4-7, 9, 13, 15-18, 21, 23-27, 29, 33, 35-37, 41, 44 remain pending and have been examined. The Applicants' amendment and remarks have been carefully considered, but they do not place the claims in condition for allowance.

2. All previous objections and rejections directed to the Applicant's disclosure and claims not discussed in this Office Action have been withdrawn by the Examiner.

Response to Arguments

3. Applicant's arguments (pages 11-15) filed on 12/16/2008 with regard to 1, 2, 4-7, 9, 13, 15-18, 21, 23-27, 29, 33, 35-37, 41, 44 have been fully considered but they are not persuasive.

With respect to claims 1,21 and 44, the newly added limitation of "the dynamic priority level for each talker is inversely proportional to a number of times said talker has been granted floor control," this portion upon further consideration is taught in Dorenbosch. The Applicant argues that Dorenbosch does not teach the newly amended limitation since in Dorenbosch a requirement for a comparison of relative numbers of successful floor control attempts is done, whereas the claim the dynamic priority level of the amendment is irrespective of the history of successful floor control attempts by other talkers. However, the Examiner respectively disagrees with this assertion. In Dorenbosch, [0049], the gaining access to a floor is determined based on the number of times each participant is granted the floor. There is an inherent priority level for each

talker based on the fewest number of grants that each participant has been granted floor control. For example, person A who has been granted 5 attempts and person B who has been granted 7 attempts, person A will have higher priority for the given floor. Further, it is inherent that in Dorenbosch that number of times is updated when a new floor has to be granted. With respect to the added limitation, the inverse relationship is apparent where for higher floor control grants leads to a lower priority for the person in queue and a higher priority for lower floor control grants. Furthermore, the claims do not restrict the dynamic priority level not being dependent upon the number of floor control attempts by other talkers. Hence, the claims are given their broadest reasonable interpretation.

The Applicants further argue that Prasad does not teach or suggest the weighting of speech energy levels by dynamic priority levels since the alphas are predetermined fixed coefficients. The Examiner respectfully disagrees with this assertion. In Prasad, page 25, left column, paragraphs above part A., the alphas are window lengths that can be chosen based on smoothness criterion. Further, these alphas allow weighting to be done on each past activity window, i.e., current activity, overall past activity, and distant past activity. Hence, these weights being multiplied to for each past activity is a weighting, where each activity type is considered more important than others. For example, overall past activity of 0.50, distant past activity of 0.3 and current activity of 0.2, where the overall activity is given more consideration than the other types of activity. Thus, Prasad teaches the weighting of speech energy (loudness) based on priority of past history. The weighting is dynamic as the speech loudness changes for

each window of past activity that is weighted, thus allowing a different past activity to be given an overall higher priority when weighted.

With respect to dependent claims 13,33, and 41, the Applicants amended to include the limitation of "predetermined threshold determined outside of the communication session and set at a server." However, adequate support for this limitation is not found in the Specification pages 7 and 8, step 320. Hence, a new 112, 1st paragraph rejection has been made and is outlined below. Furthermore, the applicant argues that Dorenbosch does not teach a "fixed threshold". In response to applicant's argument that the references fail to show certain features of applicant's invention, it is noted that the features upon which applicant relies (i.e., "fixed threshold (predetermined cutoff") are not recited in the rejected claim(s). Although the claims are interpreted in light of the specification, limitations from the specification are not read into the claims. See *In re Van Geuns*, 988 F.2d 1181, 26 USPQ2d 1057 (Fed. Cir. 1993). Furthermore, Dorenbosch does teach in paragraph [0049] that the participant that has been granted a fewer number of times the floor will be granted the floor. Hence, the threshold is the participant with fewer grants is granted control. The threshold is predetermined based on prior grants to the floor which are analyzed. The threshold is determined outside of the communication session where the media gateway 120 maintains the record and executes an arbitration algorithm, where the algorithm is a predefined and stored in the memory. Hence, Dorenbosch uses only the record contains the number of grants and incorporates this into the arbitration algorithm, where the algorithm contains the threshold (minimum of the record).

Response to Amendment

4. Applicants' amendments filed on 01/28/2008 have been fully considered. The newly amended limitations necessitate new grounds of rejection.

Claim Rejections - 35 USC § 112

5. The following is a quotation of the first paragraph of 35 U.S.C. 112:

> The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

6. Claims 13, 33, and 41 are rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the written description requirement. The claim(s) contains subject matter which was not described in the specification in such a way as to reasonably convey to one skilled in the relevant art that the inventor(s), at the time the application was filed, had possession of the claimed invention. The newly added limitation of "a predetermined threshold, said threshold determined outside of the half-duplex cellular communication session...." The closest support in the Applicant's specification is found in pages 7 and 8, step 320, where it only describes that the threshold is set at the PoC server. There is no mentioning that the threshold is determined outside of the half-duplex cellular communication session.

Claim Rejections - 35 USC § 103

7. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

8. Claims 1-5 and 13-17 are rejected under 35 U.S.C. 103(a) as being unpatentable over Rigstad *et al.* (US 6,044,150) in view of Prasad ("On the Problem of Specifying the Number of Floors for a Voice-Only Conference on Packer Networks") in view of Dorenbosch *et al.* (US 2003/0235184).

As to claims 1, 2 and 42, Rigstad *et al.* teaches a method for talker arbitration, comprising:

receiving a speech energy levels of a current talker and a prospective talker in a half-duplex communication session (see col. 10, lines 6-11, half-duplex switching) (e.g. In the cited section, the host in this case is the current talker or the remote party depending on who has the floor. Energy levels are analyzed. The prospective talker is the one that has higher speech energy.) said current prospective talkers automatically requesting floor control by commencing speech (see col. 10, lines 5-9, voice information generated by remote party is decided);.

selecting said prospective talker based on said speech energy level of said prospective talker in comparison to said speech energy level of said current talker (see col. 10, lines 9-11) (e.g. It is described that the higher energy level is selected. In col. 10, lines 3-11the predetermined threshold (set from past voice

information) of the host (current talker) as mentioned is based on the energy level of the host (current talker) and therefore set from the energy level of the host (current talker). In other words, the threshold is set to the energy level of the host (current talker). If the energy level of the remote user (prospective talker) is higher than the threshold level, then the floor (use of channel) is given to the remote user (prospective talker). Otherwise, the floor (use of channel) remains with the host (current talker). The use of the threshold by using the energy level of the host (current talker) solves the problem for assigning the floor (channel) to a respective user. Hence, the ability to access or gain the floor is dependent upon the energy level of the host (current talker) as stated in claim 1, where the energy level of the prospective talker is compared to the energy level of the current talker and the floor is given to the prospective talker if higher than the energy level of the current talker.); and

granting said selected prospective talker floor control of said half-duplex communication session (see lines 3-11) (e.g. The one who has the higher energy will have floor control.).

However, Rigstad *et al.* does not teach the use of dynamic priority levels based on number of times each talker has been granted floor control a cellular system.

Dorenbosch *et al.* does teach the use of the dynamic priority level for each talker is inversely proportional to a number of times said talker has been granted floor control, (see [0049], round robin algorithm for granting floor is used. The

priority levels are dynamic since the number of times each user is granted floor changes as the number of grants increase or decrease. The gaining access to a floor is determined based on the number of times each participant is granted the floor. There is an inherent priority level for each talker based on the fewest number of grants that each participant has been granted floor control. The inverse relationship is apparent where for higher floor control grants leads to a lower priority for the person in queue and a higher priority for lower floor control grants.) and the use of a cellular communication (see [0016], cellular telephone in a wireless network)

It would have been obvious to one of ordinary skilled in the art at the time the invention was made to have combined the talker arbitration of Rigstad *et al.* with the use of priority level based on number of times granted floor control and the implementation in a cellular communications network as taught by Dorenbosch *et al.* The motivation to have combined the two references involves another parameter for allowing the talker to control floor and for allowing arbitration among users (see Dorenbosch *et al.*, [0049]), which would benefit the talker arbitration of Rigstad *et al.* allowing the use of speech energy as well as user priority in order to gain the floor as taught by Dorenbosch *et al.*

However, Rigstad *et al.* in view of Dorenbosch *et al.* do not specifically teach the weighting of the speech energy level with the dynamic priority level.

Prasad et al. does teach the weighting of speech energy levels by corresponding dynamic priority levels (see page 25, left column, 2nd full

paragraph, and equation 5). (e.g. The rms values for each conferee is calculated and the past history is used, where each are weighted by alpha. The speech energy levels are weighted by the use of past windows.).

It would have been obvious to one of ordinary skilled in the art at the time the invention was made to have combined the talker arbitration of Rigstad *et al.* in view of Dorenbosch *et al.* with the use of weighting as taught by Prasad et al. The motivation to have combined the two references involves prevention of another speaker from gaining access to a floor that has not been involved (see Prasad, page 25, left column, first bullet at top).

As to claim 2, Prasad teaches selecting the prospective talker if said weighted energy level is higher than the weighted energy of current talker (see page 25, 2nd Full paragraphs under the two bullets, one with higher lambda is selected).

As to claims 4 and 5, Rigstad *et al.* in view of Dorenbosch *et al.* in view of Prasad teach all of the limitations as in claim 1, above.

Furthermore, Dorenbosch *et al.* teaches mobile station for signaling floor control request (see [0016], mobile station, and [0049], media gateway 120 and media gateway controller 130 maintains floor requests for callers.).

Furthermore, Rigstad et al. teaches the use of speech energy levels (see col. 10, lines 5-9).

As to claims 13, Rigstad *et al.* in view of Dorenbosch *et al.* in view of Prasad teach all of the limitations as in claim 1, above.

Furthermore, Dorenbosch *et al.* teaches wherein said prospective talker is prevented from obtaining floor control if said number of times said prospective talker has been granted floor control exceeds a predetermined threshold, said threshold determined outside of the half-duplex cellular communication session. And set at a server (see [0049], The threshold is determined outside of the communication session where the media gateway 120 maintains the record and executes an arbitration algorithm, where the algorithm is a predefined and stored in the memory, which is an algorithm determined outside of the communication session. Hence, Dorenbosch uses only the record which contains the number of grants and incorporates this into the arbitration algorithm, where the algorithm contains the threshold (minimum of the record).).

As to claims 14, Rigstad *et al.* in view of Dorenbosch *et al.* in view of Prasad teach all of the limitations as in claim 1, above.

Furthermore, Dorenbosch *et al.* teaches wherein the dynamic priority levels of said talkers are inversely proportional to the number of times said talkers have been granted floor control (see [0049], participant with fewer number of successful attempts is granted floor control. Hence, this is inversely related to the number of times granted floor control since the participant with the fewest granting of floors will be given the floor.).

As to claims 15 and 16, Rigstad *et al.* in view of Dorenbosch *et al.* in view of Prasad teach all of the limitations as in claim 1, above.

Furthermore, Rigstad *et al.* teaches receiving a speech energy level of a current talker in a communication session (see col. 10, lines 6-11) (e.g. It is stated that the host in this case is the current talker or the remote party depending on who has the floor. Energy levels are analyzed.) receiving a speech energy level of a prospective talker (see col.10, lines 6-11) (e.g. The prospective talker is the one that has higher speech energy.));

selecting said prospective talker based on said speech energy level of said prospective talker in comparison to said speech energy level of said current talker (see col. 10, lines 9-11) (e.g. It is seen that the higher energy level is selected.);

and granting said selected prospective talker floor control of said communication session (see lines 3-11) (e.g. Since the Rigstad reference uses half-duplex mode (see col. 10, lines 3-4), it is implied that the one who has the higher energy will have floor control since half duplex only supports one way communication).

Furthermore, Dorenbosch *et al.* does teach the use of dynamic priority levels based on number of times each talker has been granted floor control (see [0049], round robin algorithm for granting floor is used. The priority levels are

dynamic since the number of times each user is granted floor changes as the number of grants increase or decrease.

Furthermore, Prasad et al. does teach the weighting of speech energy levels by corresponding dynamic priority levels (see page 25, left column, 2nd full paragraph, and equation 5). (e.g. The rms values for each conferee is calculated and the past history is used, where each are weighted by alpha. The speech energy levels are weighted by the use of past windows.).

As to claim 17, Rigstad *et al.* in view of Dorenbosch *et al.* in view of Prasad teach all of the limitations as in claim 15, above.

Furthermore, Dorenbosch *et al.* teaches the use of a mobile station (see [0016], MS such as a cellular phone and [0049], floor control parameters exchanged at media gateway 120).

Furthermore, Rigstad *et al.* teaches the use of energy level determination of two parties (see col. 10, lines 3-16). It would have been obvious to implement the receiving of energy levels as taught by Rigstad in a mobile station as the reference deals with telephony.)

Furthermore, Prasad et al. does teach the weighting of speech energy levels by corresponding dynamic priority levels (see page 25, left column, 2nd full paragraph, and equation 5). (e.g. The rms values for each conferee is calculated and the past history is used, where each are weighted by alpha. The speech energy levels are weighted by the use of past windows. Multiple conferees can

be present (see page 25, left column, 2nd full paragraph under bullets, C participants).

9. Claims 7, 9, and 18 are rejected under 35 U.S.C. 103(a) as being unpatentable over Rigstad *et al.* in view of Dorenbosch *et al.* in view of Prasad, as applied to claim 1 above, and further in view of Rosen *et al.* (US 6,912,401).

As to claims 7 and 18, Rigstad *et al.* in view of Dorenbosch *et al.* in view of Prasad teaches all of the limitations as in claim 1, above.

Furthermore, Rigstad *et al.* teaches the comparing of energy levels of the host and the remote user (see col.10, lines 6-11).

Furthermore, Prasad et al. does teach the weighting of speech energy levels by corresponding priority levels (see page 25, left column, 2nd full paragraph, and equation 5). (e.g. The rms values for each conferee is calculated and the past history is used, where each are weighted by alpha. The speech energy levels are weighted by the use of past windows.).

However, Rigstad *et al.* in view of Dorenbosch *et al.* in view of Prasad do not specifically teach the use of priority levels based on the talkers.

Rosen *et al.* does teaches receiving a priority level of said current talker (see col. 3, lines 61-67 and col. 6, lines 8-11) (e.g. The priority levels are assigned to each device (see col. 3, lines 36-44). (e.g. It is seen from the Rosen *et al.* reference that the transmission privilege or floor is granted based on priority.); receiving a priority level of said prospective talker (see col. 3, lines 61-67 and col. 6, lines 8-11); wherein said step of selecting comprises selecting said

prospective talker based on priority level of said prospective talker and said static level of said current talker) (e.g. It is seen from the Rosen *et al.* reference that the transmission privilege or floor is granted based on priority.)

It would have been obvious to one of ordinary skilled in the art at the time the invention was made to have combined the talker arbitration of Rigstad *et al.* in view of Dorenbosch *et al* with the use of priority level taught by Rosen *et al.* The motivation to have combined the references involves another parameter for allowing the talker to control floor (see Rosen *et al.*, col. 5, lines 61 and col. 3, lines 61-62), which would benefit the talker arbitration of Rigstad *et al.* in view of Dorenbosch *et al.* allowing the use of speech energy as well as user priority in order to gain the floor as taught by Rosen *et al.* It would have been obvious to weight energy levels to a parameter such as number of time granted flow in order to include other factors when arbitrating floors where the weighting of other information is done by Prasad.

As to claim 9, Rigstad *et al.* in view of Dorenbosch *et al.* in view of Prasad in view of Rosen *et al.* teach all of the limitations as in claim 7, above.

Rosen *et al.* teaches priority levels of the talkers based on subscription profiles (see col. 6, lines 7-11) (e.g. It is stated in the Rosen *et al.* reference that user priority information is used, which is related to the subscription profile being used by the Applicant (see Applicant's specification, [0032]).

10. Claim 6 is rejected under 35 U.S.C. 103(a) as being unpatentable over Rigstad *et al.* in view of Dorenbosch et al., in view of Prasad as applied in claim 1, above and further in view of Hershkovits *et al.* (US 2003/0018472).

As to claim 6, Rigstad *et al.* in view of Dorenbosch in view of Prasad teach all of the limitations as in claim 1, above.

Furthermore, Rigstad *et al.* teaches the speech energy levels (see col. 10, lines 6-11).

Furthermore, Dorenbosch et al. teaches the use of a vocoder (see [0033], vocoder).

However, Rigstad *et al.* in view of Dorenbosch in view of Prasad do not specifically teach the encoding of an energy level.

Hershkovits *et al.* teaches the use of a vocoder for encoding and determining the energy signal (see [0015]).

It would have been obvious to one of ordinary skilled in the art at the time the invention was made to have combined the talker arbitration of Rigstad *et al.* in view of Dorenbosch et al. with incorporation of a vocoder as taught by Hershkovits *et al.* The motivation to have combined the references involves the compression of the speech signals (see Hershkovits *et al.*, [0005]).

11. Claims 21, 23, 24, 33-35, and 41 are rejected under 35 U.S.C. 103(a) as being unpatentable over Dorenbosch et *al.* in view of Rigstad *et al.* in view of Prasad

As to claims 21, 22, 24, and 35, Dorenbosch teaches

a first mobile (see Figure 1, cellular phone 111) associated with a current talker in a cellular communication session

a second mobile station associated with a prospective talker (see Figure 1, cellular phone 112); a server, connected to said first and second mobile stations (see Figure 1, Media Gateway 120),

said server adapted to enable one of said first and second mobile stations to transmit (see [0044], media gateway 120 receives transmitted information from mobile stations). Dorenbosch *et al.* teaches a third mobile station (see Figure 1, cellular phone 113).

the dynamic priority level for each talker is inversely proportional to a number of times said talker has been granted floor control, (see [0049], round robin algorithm for granting floor is used. The priority levels are dynamic since the number of times each user is granted floor changes as the number of grants increase or decrease. The gaining access to a floor is determined based on the number of times each participant is granted the floor. There is an inherent priority level for each talker based on the fewest number of grants that each participant has been granted floor control. The inverse relationship is apparent where for higher floor control grants leads to a lower priority for the person in queue and a higher priority for lower floor control grants.)

However, Dorenbosch *et al.* does not specifically teach the use of speech energy levels received from the mobile stations.

Rigstad *et al.* does teach the use of energy levels for half-duplex communication (see col. 10, lines 3-10.) said current prospective talkers automatically requesting floor control by commencing speech (see col. 10, lines 5-9, voice information generated by remote party is decided);.

It would have been obvious to one of ordinary skilled in the art at the time the invention was made to have modified the system for talker arbitration taught by Dorenbosch *et al.* with the transmitting of energy levels taught by Rigstad *et al.* The motivation to have combined the references involves the usage of the energy levels to determine who has access to the channel (see Rigstad *et al.*, col. 10, lines 3-6) in order to grant that user the floor based on a threshold limit in the system taught by Dorenbosch *et al.* and Rigstad *et al.*

However, Dorenbosch *et al.* in view of Rigstad *et al.* do not specifically teach the weighting of the speech energy level with the dynamic priority level.

Furthermore, Prasad et al. does teach the weighting of speech energy levels by corresponding dynamic priority levels (see page 25, left column, 2nd full paragraph, and equation 5). (e.g. The rms values for each conferee is calculated and the past history is used, where each are weighted by alpha. The speech energy levels are weighted by the use of past windows.).

It would have been obvious to one of ordinary skilled in the art at the time the invention was made to have combined the talker arbitration of Rigstad *et al.* in view of Dorenbosch *et al.* with the use of weighting as taught by Prasad et al. The motivation to have combined the two references involves prevention of

another speaker from gaining access to a floor that has not been involved (see Prasad, page 25, left column, first bullet at top).

As to claims 33 and 41, Dorenbosch *et al.* in view of Rigstad *et al.* in view of Prasad teaches all of the limitations as in claim 21, above.

Furthermore, Dorenbosch *et al.* teaches wherein said prospective talker is prevented from obtaining floor control if said number of times said prospective talker has been granted floor control exceeds a predetermined threshold, said threshold determined outside of the half-duplex cellular communication session. And set at a server (see [0049], The threshold is determined outside of the communication session where the media gateway 120 maintains the record and executes an arbitration algorithm, where the algorithm is a predefined and stored in the memory, which is an algorithm determined outside of the communication session. Hence, Dorenbosch uses only the record which contains the number of grants and incorporates this into the arbitration algorithm, where the algorithm contains the threshold (minimum of the record).).

As to claims 34, Rigstad *et al.* in view of Dorenbosch *et al.* in view of Prasad teach all of the limitations as in claim 21, above.

Furthermore, Dorenbosch *et al.* teaches wherein the dynamic priority levels of said talkers are inversely proportional to the number of times said talkers have been granted floor control (see [0049], participant with fewer number

of successful attempts is granted floor control. Hence, this is inversely related to the number of times granted floor control since the participant with the fewest granting of floors will be given the floor.).

12. Claim 23 is rejected under 35 U.S.C. 103(a) as being unpatentable over Dorenbosch *et al.* in view of Rigstad *et al.* in view of Prasad as applied to claim 21 above, and further in view of Toyryla (US 6,999,783).

As to claim 23, in view of Dorenbosch *et al.* in view of Rigstad *et al.* in view of Prasad teach all of the limitations as in claim 21, above.

However, Dorenbosch *et al.* in view of Rigstad *et al.* do not specifically teach the use of press-to-talk over cellular.

Toyryla does teach the use of a press-to-talk over cellular (e.g. This is the same as a press-to-talk over cellular) communication system (see col. 4, lines 64-col. 5, lines 1-4).

It would have been obvious to one of ordinary skilled in the art at the time the invention was made to have combined the talker arbitration of Dorenbosch *et al.* in view of Rigstad et al. in view of Prasad with incorporation of press-to-talk over cellular as taught by Toyryla *et al.* The motivation to have combined the references involves another type of communication system that is well known for providing talk group communication (see Toyryla col. 4, lines 64-col. 4, lines 5).

13. Claim 25 is rejected under 35 U.S.C. 103(a) as being unpatentable over Dorenbosch et al. in view of Rigstad et al. in view of Prasad as applied to claim 21 above, and further in view of Hershkovits *et al.*

Furthermore, Dorenbosch et al. teaches the use of a vocoder (see [0033], vocoder).

Furthermore, Rigstad et al. teaches the speech energy levels (see col. 10, lines 6-11).

However, Dorenbosch in view of Rigstad et al. in view of Prasad do not specifically teach the encoding of an energy level.

Hershkovits *et al.* teaches the use of a vocoder for encoding and determining the energy signal (see [0015]).

It would have been obvious to one of ordinary skilled in the art at the time the invention was made to have combined the talker arbitration of Dorenbosch *et al.* in view of Rigstad et al. in view of Prasad with incorporation of a vocoder as taught by Hershkovits *et al.* The motivation to have combined the references involves the compression of the speech signals (see Hershkovits *et al.*, [0005]).

14. Claims 26, 27, 29, 36, and 37 are rejected under 35 U.S.C. 103(a) as being unpatentable over Dorenbosch et *al.* (US 6,999,783) in view of Rigstad *et al.* in view of Prasad as applied to claim 21 above, and further in view of Rosen *et al.*

As to claims 26, 27, 36, and 37, Dorenbosch *et al.* in view of Rigstad *et al.* in view of Prasad teaches all of the limitations as in claim 21, above.

Furthermore, Rigstad *et al.* teaches the comparing of energy levels of the host and the remote user (see Rigstad *et al,* col.10, lines 6-11).

Furthermore, Prasad et al. does teach the weighting of speech energy levels by corresponding priority levels (see page 25, left column, 2nd full paragraph, and equation 5). (e.g. The rms values for each conferee is calculated and the past history is used, where each are weighted by alpha. The speech energy levels are weighted by the use of past windows.).

However, Dorenbosch *et al.* and Rigstad *et al.* in view of Prasad do not specifically teach the static priority levels of talkers.

Rosen *et al.* does teaches receiving a priority level of said current talker (see col. 3, lines 61-67 and col. 6, lines 8-11) (e.g. The priority levels are assigned to each device (see col. 3, lines 36-44). (e.g. It is seen from the Rosen *et al.* reference that the transmission privilege or floor is granted based on priority.);

receiving a priority level of said prospective talker (see col. 3, lines 61-67 and col. 6, lines 8-11);

wherein said step of selecting comprises selecting said prospective talker based on priority level of said prospective talker and said static level of said current talker) (e.g. It is seen from the Rosen *et al.* reference that the transmission privilege or floor is granted based on priority.) The selection of members receiving the priority can be more than two as seen by Figure 1, elements 102, 104, 106 and col. 3, lines 55-57).

It would have been obvious to one of ordinary skilled in the art at the time the invention was made to have modified the talker arbitration of Dorenbosch *et al.* in view of Rigstad *et al. in* view of Prasad with the use of priority level taught by Rosen *et al.* The motivation to have combined the references involves another parameter for allowing the talker to control floor (see Rosen *et al.*, col. 5, lines 61 and col. 3, lines 61-62), which would benefit the communication among groups taught by Dorenbosch *et al. and* comparing of energy levels taught by Rigstad *et al.* the allowing the use of speech energy as well as user priority in order to gain the floor.

As to claim 29, Dorenbosch *et al.* in view of Rigstad *et al.* in view of Prasad in view of Rosen *et al.* teach all of the limitations as in claim 26, above.

Furthermore, Rosen *et al.* teaches the priority levels of the talkers based on subscription profiles (see col. 6, lines 7-11) (e.g. It is stated in the Rosen *et al.* reference that user priority information is used, which is related to the subscription profile being used by the Applicant (see Applicant's specification, [0032]).

15. Claims 44 is rejected under 35 U.S.C. 103(a) as being unpatentable over Rigstad *et al.* in view of Dorenbosch *et al.* in view of Prasad

As to claim 44, Rigstad *et al.* teaches a method for talker arbitration, comprising:

receiving a speech energy level of a current talker in a half duplex communication session (see col. 10, lines 6-11) (e.g. It is stated that the host in this case is the current talker or the remote party depending on who has the floor. Energy levels are analyzed.) ; receiving a speech energy level of a prospective talker (see col.10, lines 6-11) (e.g. The prospective talker is the one that has higher speech energy.)) said current prospective talkers automatically requesting floor control by commencing speech (see col. 10, lines 5-9, voice information generated by remote party is decided);.

selecting said prospective talker based on said speech energy level of said prospective talker in comparison to said speech energy level of said current talker (see col. 10, lines 9-11) (e.g. It is seen that the higher energy level is selected.); and

granting said selected prospective talker floor control of said communication session (see lines 3-11).

However, Rigstad *et al.* does not specifically teach the use of static or dynamic priority levels based on the talkers.

Dorenbosch *et al.* does teach the dynamic priority level for each talker is inversely proportional to a number of times said talker has been granted floor control, (see [0049], round robin algorithm for granting floor is used. The priority levels are dynamic since the number of times each user is granted floor changes as the number of grants increase or decrease. The gaining access to a floor is determined based on the number of times each participant is granted the floor.

There is an inherent priority level for each talker based on the fewest number of grants that each participant has been granted floor control. The inverse relationship is apparent where for higher floor control grants leads to a lower priority for the person in queue and a higher priority for lower floor control grants.)

It would have been obvious to one of ordinary skilled in the art at the time the invention was made to have combined the talker arbitration of Rigstad *et al.* with the use of priority level based on number of times granted floor control and the implementation in a cellular communications network as taught by Dorenbosch *et al.* The motivation to have combined the two references involves another parameter for allowing the talker to control floor and for allowing arbitration among users (see Dorenbosch *et al.*, [0049]), which would benefit the talker arbitration of Rigstad *et al.* allowing the use of speech energy as well as user priority in order to gain the floor as taught by Dorenbosch *et al.*

However, Rigstad *et al.* in view of Dorenbosch *et al.* do not specifically teach the weighting of the speech energy level with the dynamic priority level.

. Prasad et al. does teach the weighting of speech energy levels by corresponding priority levels (see page 25, left column, 2nd full paragraph, and equation 5). (e.g. The rms values for each conferee is calculated and the past history is used, where each are weighted by alpha. The speech energy levels are weighted by the use of past windows.).

It would have been obvious to one of ordinary skilled in the art at the time the invention was made to have combined the talker arbitration of Rigstad *et al.*

in view of Dorenbosch *et al.* with the use of weighting as taught by Prasad et al. The motivation to have combined the two references involves prevention of another speaker from gaining access to a floor that has not been involved (see Prasad, page 25, left column, first bullet at top).

Conclusion

16. **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

17. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

Moss (US 7,233,580) is cited to disclose transfer of talk status based on priority levels of the talker. Simard et al. (US 2002/0085697) is cited to disclose the use of speech indication signals for selecting talkers utilizing energy levels. Berler (US 2004/0100915) is cited to disclose control access for ongoing session based on

customer's priority. Koskelainen et al. (US 2004/0174830) is cited to disclose floor control language that describes access to floor based on priority.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to PARAS SHAH whose telephone number is (571)270-1650. The examiner can normally be reached on MON.-THURS. 7:00a.m.-4:00p.m. EST.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Patrick Edouard can be reached on (571)272-7603. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/P. S./
Examiner, Art Unit 2626

03/11/2009

/Patrick N. Edouard/
Supervisory Patent Examiner, Art Unit 2626